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TO: Antonia Vorster
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FROM: Kenneth Landau
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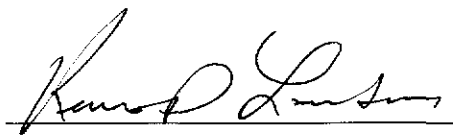
DATE: 24 February 2006

SIGNATURE: 

SUBJECT: EXPLANATION OF INTERIM OPERATING LIMITS FOR HILMAR CHEESE PROCESSING FACILITY AS CONTAINED IN PARAGRAPH 5(d) OF THE FEBRUARY 10, 2006 TENTATIVE REVISED SETTLEMENT AGREEMENT BETWEEN THE PROSECUTION STAFF OF THE CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD, CENTRAL VALLEY REGION, AND THE HILMAR CHEESE COMPANY, INC. AND HILMAR WHEY PROTEIN, INC.

As leader of the Board's Prosecution Team in this matter, I am sending you, as a representative of the Board's Adjudicatory Team, this memorandum that contains an explanation of how the Prosecution Team views the Interim Operating Limits in the tentative revised Settlement Agreement. I request that this memorandum be included in the Agenda Package for this item at the March 2006 Regional Board meeting, or be otherwise transmitted to the Board members and public for their review and consideration.

This document is not part of the Settlement Agreement, but provides an explanation of the purpose and derivation of the Interim Operating Limits contained in Paragraph 5(d) of the Tentative Revised Settlement Agreement (Agreement).

The Regional Board typically imposes interim effluent limits, interim discharge conditions, and other constraints as appropriate in waste discharge requirements and enforcement orders (e.g., cease and desist orders) when an existing discharge cannot achieve compliance with prescribed discharge specifications. The purpose of any interim limit is to establish the threshold that defines whether a discharger is "doing the best it can" until full compliance can be achieved. Interim limits are developed by examining recent operational history of a facility and deriving conditions that the discharger can reasonably meet with the existing treatment systems and operations at the facility. Interim limits generally are set at a level that approximates the current discharge conditions and does not allow for expansions beyond the current discharge at a facility. Interim limits take into account the normal variability of influent wastewater characteristics, treatment system operation, and sampling and laboratory analyses. Interim limits also acknowledge that existing treatment systems may not be as reliable as either the Regional Board or discharger would like, and so must account for some degree of system failure or operational difficulties. Prescribing numeric effluent limits is in part an analysis of existing effluent data, but professional judgment is also applied in setting the final limits. Interim limits remain in effect for a prescribed period of time until an enforceable compliance time schedule requires compliance with final limits. It has been

this and other regional boards' practice to not take enforcement action for violations of final limits (such as those in Waste Discharge Requirements (WDRs) Order No. 97-206 in this case) as long as a discharger is in compliance with interim limits. This Agreement would formalize that practice by making the commitment not to take enforcement explicit while Hilmar is in compliance with interim limits.

Existing treatment facilities of Hilmar Cheese Company, Inc. and Hilmar Whey Protein, Inc. (Hilmar Cheese) are not capable of treating all wastewater to comply with all the discharge conditions contained in WDRs Order No. 97-206 (violations of which are alleged in the Administrative Civil Liability Complaint (Complaint No. R5-2005-0501)). The Interim Operating Limits in the Agreement are intended to require Hilmar Cheese to operate its existing cheese production facilities and wastewater treatment system as effectively as is feasible to preclude an increase in salinity impacts to groundwater during the Interim Operating Period specified in the Agreement. Clarifying language has been added that effectively would preclude flow or salt greater than the limits in the Agreement. If Hilmar Cheese violates the Interim Operating Limits, the Regional Board would be free (subject to statutory exceptions) to seek civil liability for violations of WDRs Order No. 97-206 occurring during the period of noncompliance.

The following is a brief description of the Hilmar Cheese wastewater treatment system and the discharge conditions that would be allowed by the Agreement during the Interim Operating Period.

Stated simply, salt is removed by Hilmar Cheese through a process called reverse osmosis (RO) in which water containing salt is forced under high pressure through thin membranes. The membranes have small holes that allow water, but not salt, to pass through the membrane. The water that has passed through the membranes (called RO Permeate) is relatively low in salt and is applied to land for crop irrigation. The remaining water that did not pass through membranes (called RO Concentrate) contains high concentrations of salt. The RO Concentrate is currently further concentrated by evaporation and is then trucked offsite for disposal into San Francisco Bay through the East Bay Municipal District Wastewater Treatment Plant in Oakland.

Hilmar Cheese disposes of wastewater on two sets of land. The "Primary Fields" are fields owned and operated by Hilmar Cheese or owners of Hilmar Cheese. The "Secondary Fields" are fields owned by others who have agreed to receive RO Permeate from Hilmar Cheese for irrigation purposes.

The WDRs Order No. 97-206 require that wastewater discharged to land not contain salt concentrations (as measured by electrical conductivity at 25°C, or EC) that exceed 900 µmhos/cm. The treatment system currently in use by Hilmar Cheese cannot treat all wastewater to meet the 900 µmhos/cm salt limit. Hilmar Cheese has historically limited discharge of wastewater that exceeds 900 µmhos/cm to the Primary Fields and directed wastewater that meets 900 µmhos/cm to the Secondary Fields. The Agreement would require that wastewater discharged to the Secondary Fields continue to meet the 900 µmhos/cm limit and that the wastewater applied to the Primary Fields be no greater than 3700 µmhos/cm.

The numeric Interim Operating Limits (see Agreement, paragraph 5(d)) and corresponding discharge specifications in WDRs Order No. 97-206 are summarized in the following table.

Parameter	Order No. 97-206	Interim Operating Limit
Maximum Total Non-RO Discharge To Primary Fields	Part of 0.75 mgd total discharge limit	1.2 mgd[1]
Maximum EC[2] To Primary Fields	900 µmhos/cm	3700 µmhos/cm
Minimum RO Permeate Discharge	Not Applicable	0.6 mgd
Maximum EC of RO Permeate	900 µmhos/cm	900 µmhos/cm
Maximum Total Discharge To Land	0.75 mgd	1.9 mgd

[1] Million gallons per day
[2] Electrical conductivity at 25°C

The Interim Operating Limit maximum of 3700 µmhos/cm for wastewater applied to the Primary Fields is based upon recent operating history of Hilmar Cheese's discharge. Figure 1 is a graph of the salinity of wastewater discharged to the Primary Fields over the past year. The horizontal line on the graph shows the proposed 3700 µmhos/cm Interim Operating Limit. As can be seen from Figure 1, the 3700 µmhos/cm Interim Operating Limit is lower than the salinity of Hilmar Cheese's discharge to the Primary Fields for some months, so Hilmar Cheese will have to operate the treatment system to prevent a recurrence of the highest historic salinity concentrations. This Interim Operating Limit would prevent Hilmar Cheese from discharging wastewater to the Primary Fields that is saltier than the wastewater discharged in recent months.

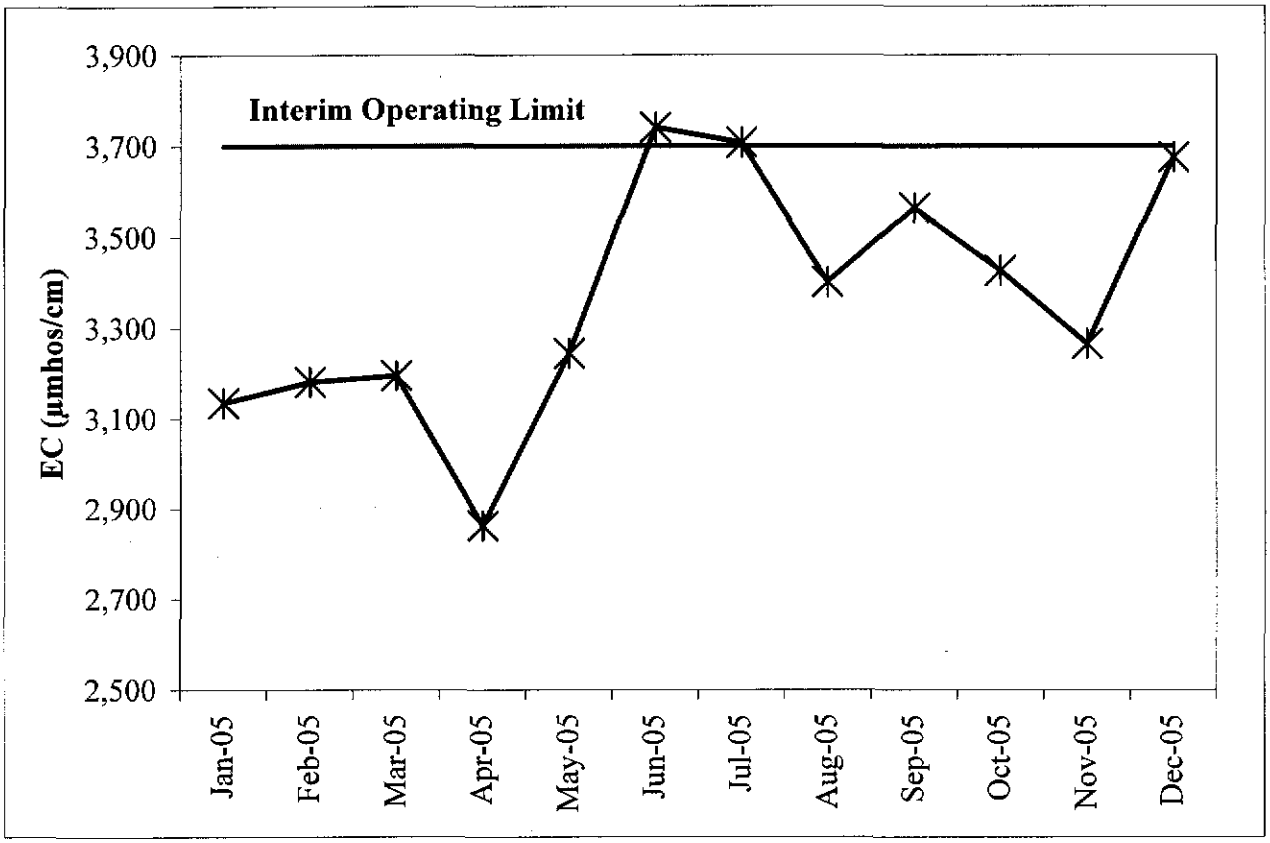


Figure 1. Electrical Conductivity of Wastewater Applied to Primary Fields in 2005.

To assure that Hilmar Cheese continues to operate the treatment system to remove salt from the wastewater prior to land disposal, an Interim Operating Limit would require that a MINIMUM of 0.6 million gallons per day of RO Permeate be produced each day. Hilmar Cheese can, at times, produce more treated water than required by this Interim Operating Limit, but operational difficulties prevent consistent production of more than 0.7 mgd of RO Permeate.

Other Interim Operating Limits would prevent Hilmar Cheese from continuing to increase the volumes of water discharged from the plant. Figures 2 and 3 show the proposed Interim Operating Limits for flow as horizontal lines, and the recent wastewater flows reported by Hilmar Cheese. The Interim Operating Limits for flow are:

- The maximum volume of water NOT TREATED BY REVERSE OSMOSIS to remove salt concentrations (Non-RO Discharge) that can be applied to the Primary Fields (1.2 million gallons per day). The Interim Operating Limit for Non-RO Discharge would restrict the volume of this saltier wastewater that can be applied to the Primary Fields.
- The total maximum volume of wastewater that can be applied to the Primary and Secondary Lands (1.9 million gallons per day). This Interim Operating Limit for Total Maximum Discharge to Land would restrict further increases in total wastewater flow from the plant, which would prevent Hilmar Cheese from expanding its processing capacity during the term of this Agreement.[1]

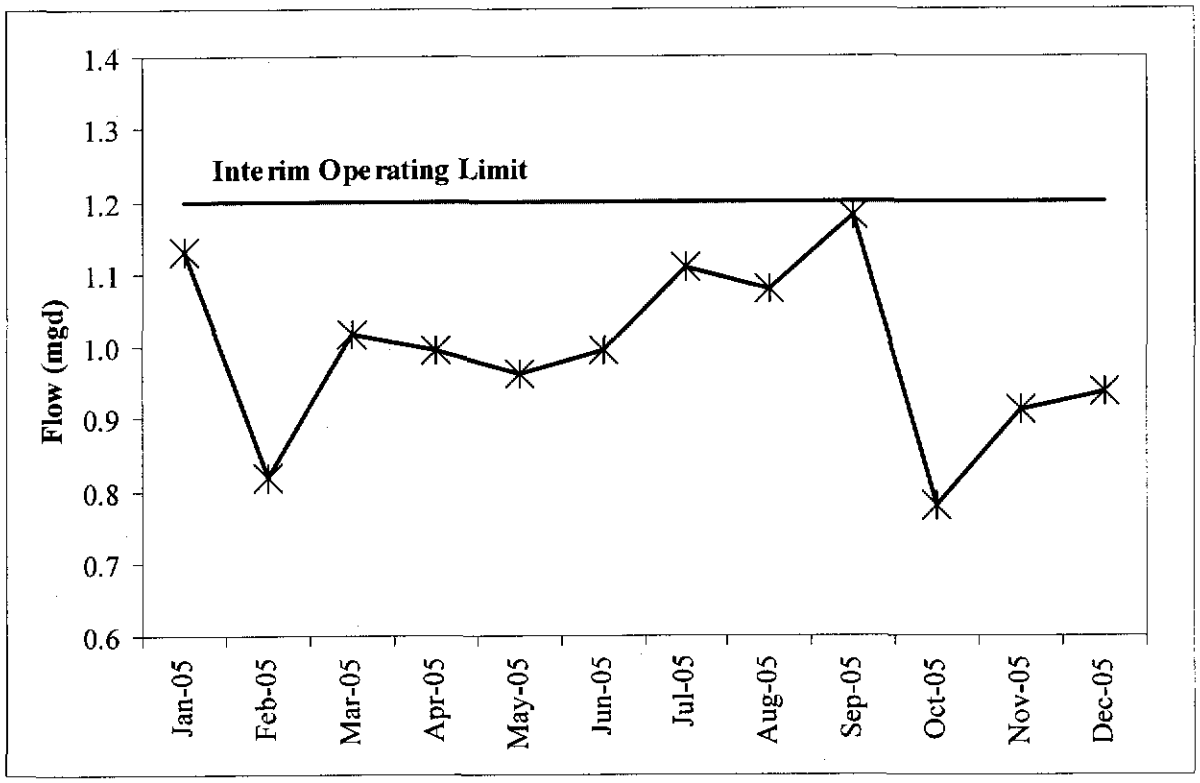


Figure 2. Flow to Primary Fields in 2005.

[1] In addition, the Agreement provides that if the United States Environmental Protection Agency issues an injection control permit for deep well injection, followed by an "Authorization to Inject" letter, Hilmar would reduce its allowed Total Maximum Discharge to Land during the Interim Operating Period by an amount equal to the amount it is injecting into the well(s).

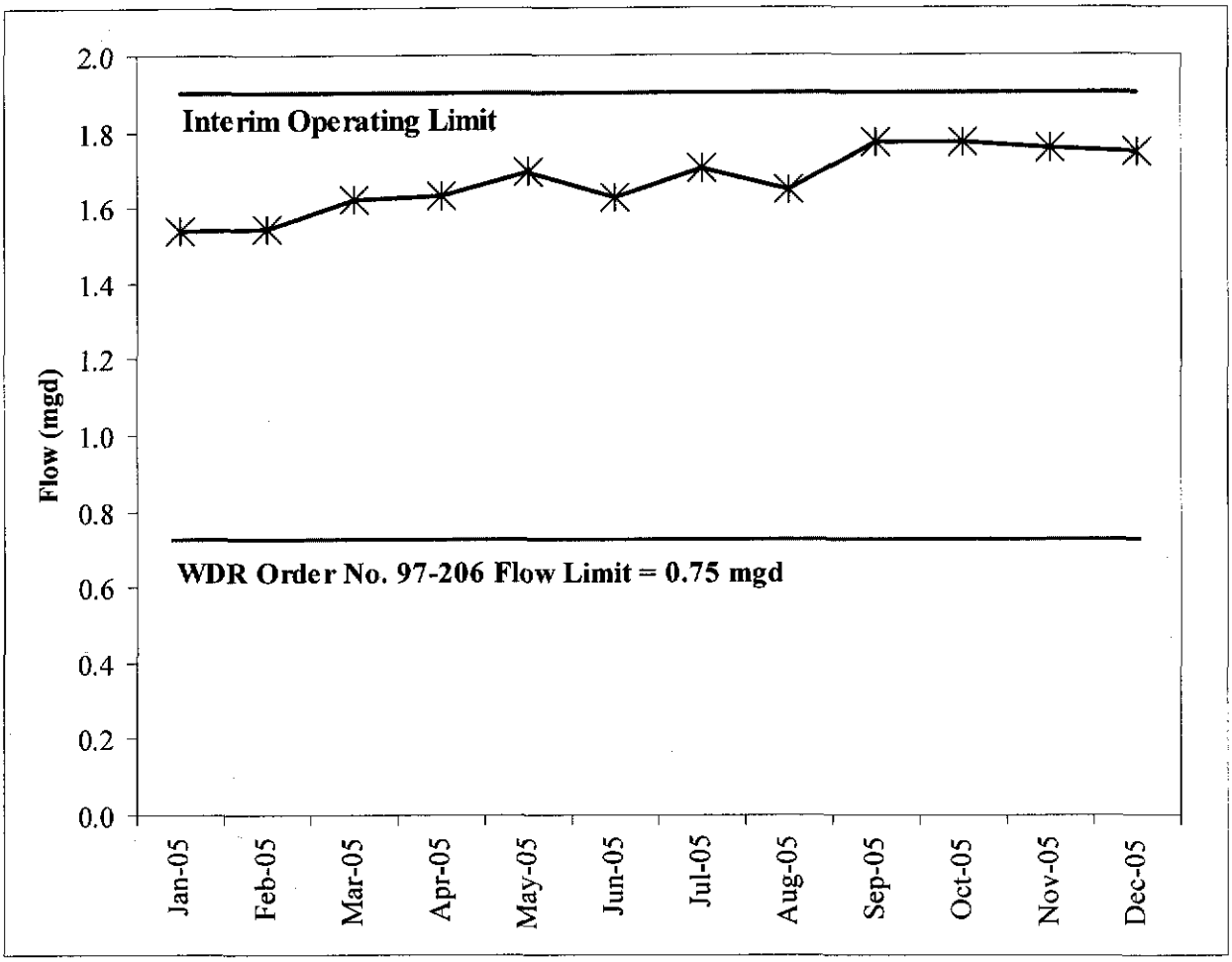


Figure 3. Total discharge flow to land in 2005.[2]

[2] Total Flow during August and September 2005 includes discharges of SBR decant to ponds. The total flow for September was calculated by summing the flows for each wastewater source (Primary Fields, SBR decant to ponds, RO permeate) divided by the number of days in the month, not the number of days discharged for each wastewater source.